

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	("20070011758").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/11/01 06:48
L2	37973	(transgenic or knockout) with mouse	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/11/01 06:49
L3	181	I2 and ((GLAST) or (glutamate adj transport\$))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/11/01 06:51
L4	2	I3 and (knockout same GLAST)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/11/01 06:52
L5	15	I3 and (intraocular adj pressure)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/11/01 06:54
L6	0	tanak-k\$.in. and GLAST	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/11/01 06:54
L7	4	tanaka-k\$.in. and GLAST	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/11/01 06:54

## EAST Search History

L8	4	harada-t\$.in. and GLAST	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/11/01 06:56
L9	641	I2 and (C57BL/6 or C57BL6) and backcross\$	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/11/01 06:56
L10	57	I9 and (backcross\$ with times)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/11/01 07:01
L11	178	I9 and (backcross\$ with generation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/11/01 07:02
L12	290	I9 and (backcross\$ with (C57BL/6 or C57BL6))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/11/01 07:02
L13	101	I11 and (backcross\$ with (C57BL/6 or C57BL6))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/11/01 07:02
L14	8	I11 and L10	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/11/01 07:02

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(FILE 'HOME' ENTERED AT 09:36:54 ON 01 NOV 2007)

FILE 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ESBIOBASE, FOMAD, ...' ENTERED AT 09:37:08 ON 01 NOV 2007

L1	189613 S TRANSGENIC AND (KNOCKOUT OR DISRUPTION)
L2	114 S L1 AND (GLAST OR GLUT-1)
L3	6 S L2 AND INTRAOCULAR
L4	6 DUP REMOVE L3 (0 DUPLICATES REMOVED)
L5	95 DUP REMOVE L2 (19 DUPLICATES REMOVED)
L6	24 S L5 AND (EXON (S) 6)
L7	167 S TANAKA K/AU AND GLAST
L8	54 DUP REMOVE L7 (113 DUPLICATES REMOVED)
L9	15 S L8 AND KNOCKOUT



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## Phenotypic Allele Detail

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Allele Symbol: **Slc1a3<sup>tm1Kta</sup>**

Name: targeted mutation 1, Kohichi Tanaka  
ID: MGI:1931872

Synonyms GLAST-

### Allele details

Allele Type: Targeted (knock-out)

Strain of Origin: 129P2/OlaHsd

ES Cell Line: E14

Mutation: Disruption caused by insertion of vector  
A PGK-neomycin resistance cassette replaced sequences in exon 6 that code for the fourth transmembrane segment of the protein. Cerebellar transcript was not detected in homozygous mutant animals. Immunoblot analysis of cerebellar membranes did not detect protein in homozygous mutant mice. ([J:46746](#))

International Mouse Strain Resource: ([Search for IMSR strains](#) with Slc1a3 mutations)

References and Additional Notes: (See Below)

### Gene information

Symbol: Slc1a3

Name: solute carrier family 1 (glial high affinity glutamate transporter), member 3

Chromosome: 15

Genetic Position: 6.7 cM, cytoband A2

Genome Coordinates: Chr15:8581335-8657945 bp, - strand (From Ensembl annotation of NCBI Build 36)

Human Ortholog: [SLC1A3](#)

### Phenotypes

Phenotypic details for all genotypes that include at least one **Slc1a3<sup>tm1Kta</sup>** allele

#### Allelic Composition Genetic Background

[Slc1a3<sup>tm1Kta</sup>](#)/[Slc1a3<sup>tm1Kta</sup>](#) involves: 129P2/OlaHsd

#### behavior/neurological

##### [behavior/neurological phenotype](#) ([J:46746](#))

- no ataxic gait or intention tremors
- spontaneous activity in a new environment is also normal
- [abnormal motor coordination/ balance](#) ([J:46746](#))

- although ability to maintain balance on a slowly rotating rotarod was normal, ability to maintain balance at higher speeds (20RPM) was impaired

##### [seizures](#) ([J:58180](#))

##### [kindling](#) ([J:58180](#))

- initial seizure development and duration after kindling were normal but duration of stage 3 seizures was significantly prolonged

##### [susceptibility to](#)

##### [pharmacologically induced seizures](#) ([J:58180](#))

- seizures induced by pentylenetetrazole (PTZ) are more severe and prolonged

#### hearing/vestibular/ear